

CLAIMS

1. A liquid crystal display comprising a ferroelectric liquid crystal sandwiched between two substrates,

characterized in that an electrode and a photo alignment layer are each successively formed on opposite faces of the two substrates facing each other; and

a constituent material of the respective photo alignment layer has a different composition with the ferroelectric liquid crystal sandwiched therebetween.

2. The liquid crystal display according to claim 1, characterized in that the constituent material of the respective photo alignment layer is a photo-isomerizable material comprising a photo-isomerization-reactive compound which generates a photo-isomerization reaction to give anisotropy to the respective photo alignment layer.

3. The liquid crystal display according to claim 2, characterized in that the photo-isomerization-reactive compound is a compound which has dichroism that different absorptivities are exhibited depending on a polarization direction thereof and further generates the photo-isomerization reaction by a light irradiation.

4. The liquid crystal display according to claim 2 or 3, characterized in that the photo-isomerization reaction is a cis-trans isomerization reaction.

5. The liquid crystal display according to any one of claims 2 to 4, characterized in that the photo-isomerization-reactive compound is a compound having, in a molecule thereof, an azobenzene skeleton.

6. The liquid crystal display according to any one of claims 2 to 5, characterized in that the photo-isomerization-reactive compound is a polymerizable monomer having, as its side chain, the azobenzene skeleton.

7. The liquid crystal display according to any one of claims 1 to 6, characterized in that the ferroelectric liquid crystal exhibits mono-stability.

8. The liquid crystal display according to any one of claims 1 to 7, characterized in that the ferroelectric liquid crystal is a liquid crystal having, in a phase series thereof, no smectic A phase.

9. The liquid crystal display according to any one of claims 1 to 8, characterized in that the ferroelectric liquid crystal is a liquid crystal which constitutes a single phase.

10. The liquid crystal display according to any one of claims 1 to 9, characterized in being driven by an active matrix system using a thin film transistor.

11. The liquid crystal display according to any one of claims 1 to 10, characterized in being displayed by a field sequential color system.